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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,698	12/16/2003	Sang-Chul Lee	6192.0072.C1	3544

7590 10/13/2004  
McGuire Woods LLP  
1750 Tysons Blvd., Suite 1800  
McLean, VA 22102

EXAMINER
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NGUYEN, HOAN C

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/735,698	<b>Applicant(s)</b> LEE, SANG-CHUL	
	<b>Examiner</b> HOAN C. NGUYEN	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/16/03</u> | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

Claims 1-12 are canceled. Therefore, ONLY claims 13-29 are still pending.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 13-16, 18-19, 21, 24-29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S.

Patent No. 6,473,146. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

- features of claims 13-16, 18-19, 21, 24, 26-29 of the instant application anticipate with features of claims 1-4 of U.S. Patent No. 6,473,146.
- "a flexible PCB" of claim 25 of the instant application anticipate with TCP of claim 1 of U.S. Patent No. 6,473,146.

***Claim Objections***

Claim 21 is objected to because of the following informalities: there is two different claims which number 21. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 13-21 and 24-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al. (US5838400A).

In regard to claims 13, 18-19, 26, Ueda et al. teach (Figs. 1-6, 20A-B) a display device comprising:

- a bottom casing MCA comprising
  - a mold frame including a series of optical sheets (PRS/SPS/GLB/RFS);
  - a bottom chassis assembled/integrated to said mold frame;
- a top chassis SHD assembled to said mold frame;
- a display panel PNL positioned between said bottom chassis and said top chassis;
- a printed circuit board (PCB or FPC) connected to said display panel;
- a grounding protrusion (frame ground pads FGP) formed on said PCB or FPC.

wherein

Claims 14, 27-29:

- said mold frame accommodates a lamp assembly LP/GLB and a reflector RFS.

Claim 15:

- said display panel PNL is positioned onto said optical sheets PRS/SPS.

Claims 16 and 25:

- the FPC includes the PCB is connected to said display panel via a tape carrier package (TCP), and fixed to said bottom chassis by a fixing means (fixing hooks HK).

Claim 17:

- the grounding protrusion inherently are formed on said PCB where a signal transmission pattern is not formed.

Claim 20:

- the PCB/FBC further comprises a driving integrated circuit (IC) that is COG and a signal transmission pattern.

Claim 21:

- the PCB further comprises a via hole (col. 5 lines 3-5) and the PCB is attached on the chassis as Fig. 20A shown.

Claim 24:

- the ground protrusion (frame ground pads FGP) is in direct contact with the chassis SHD via frame ground pawls FGF (col. 12 lines 51-63).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (US5838400A) as applied to claims 13-21 and 24-29 in view of Kiyono et al. (US4705959A)

Ueda et al. fail to disclose the PCB having a screw hole and attached to the chassis by a screw and the screw hole formed on a corner of the PCB.

Kiyono et al. teach (Fig. 1) the PCB 22 having a screw hole 32 and attached to the chassis (base 23) by a screw 33 and the screw hole formed on a corner of the PCB for securing the PCB to the casing 24 (col.3 line 30-31).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display device as Ueda disclosed with the PCB 22 having a screw hole 32 and attached to the chassis (base 23) by a screw 33 and the screw hole formed on a corner of the PCB for securing the PCB to the casing as taught by Kiyono et al. (col.3 line 30-31).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Yamamura et al. (US5729316) disclose a printed circuit board having the step structure therein, so that color signal lines have a high-density structure, while maintaining an area of LCD uniformly at any case.

Lee (US 6504586 B1) discloses a liquid crystal display (LCD) module with a holder electrically connected to an earth terminal of a printed circuit board (PCB) and a top chassis so that an electromagnetic wave exhaust passage can be formed.

Zurcher (US 4028509 A) discloses a grounded metallized elastomeric sheet, a perforated insulating spacer and a rigid printed circuit board provided with feedthrough holes and wiring pins associated with a two dimensional array of electrodes.

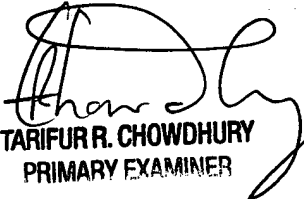
Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim H Robert can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HOAN C. NGUYEN  
Examiner  
Art Unit 2871

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TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER